

## Product datasheet for **SC303525**

### LRAT (NM\_004744) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LRAT (NM_004744) Human Untagged Clone
Tag:	Tag Free
Symbol:	LRAT
Synonyms:	LCA14
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004744 edited  
 ACTGAATGTAGCCACCTTTCTAACGGTCCGGGAAACCAGAGGTCTCTCCAGCTACTCAG  
 GGATGAAGAACCCCATGCTGGAGGTGGTGTCTTTACTACTGGAGAAGCTGCTCCTCATCT  
 CCAACTTCACGCTCTTTAGTTCCGGGCGCCGCGGGCAAGACAAAGGGAGGAACAGTTTTT  
 ATGAAACCAGCTCTTTCCACCGAGGCGACGTGCTGGAGGTGCCCCGACCCACCTGACCC  
 ACTATGGCATCTACCTAGGAGACAACCGTGTGCCACATGATGCCCGACATCCTGTTGG  
 CCCTGACAGACGACATGGGGCGCACGCAAGAGGTGGTCTCCAACAAGCGTCTCATCCTGG  
 GCGTTATTGTCAAAGTGGCCAGCATCCGCGTGGACACAGTGGAGGACTTCGCCTACGGAG  
 CTAACATCCTGGTCAATCACCTGGACGAGTCCCTCCAGAAAAAGGCACTGCTCAACGAGG  
 AGGTGGCGCGGAGGGCTGAAAAGCTGCTGGGCTTTACCCCTACAGCCTGCTGTGGAACA  
 ACTGCGAGCACTTCGTGACCTACTGCAGATATGGCACCCCGATCAGTCCCAGTCCGACA  
 AGTTTTGTGAGACTGTGAAGATAATTATTCGTGATCAGAGAAGTGTCTTGCTTCAGCAG  
 TCTTGGGATTGGCGTCTATAGTCTGTACGGCTTGGTATCATACACTACCCCTCCTGCAA  
 TTTTTATTCCATTCTTCCTATGGATGGCTGGCTAACTTCATACCCCATGTCAGTGTGTG  
 TATTCTGTATGTAATATGTTTATATTTATAGAGCATCAATCAATATAAGCATTATTGAG  
 AAAAAATGTGACCCGTAACACTGTGTTCTGGATAAAAAATGTGATTAGGAATCACGCAAAGT  
 GCTTACTGTGTAAGCCCAAGAACAAGGCTTTCTGAATCTTCTCAGGCAGTTCAGATTTA  
 AAGCACCATCAAACCTTGAAAACGACAGGGTGTGGTAGAATTCAGCAATATGAGAAA  
 ACCAGCCCTAAAATGATAGCCACAAGAGATTAATTGTGTTTTTTTTCTCCTGTAATCC  
 TTGTAAGTTCGGCTGAATTTGAAGATTGGAAGACTTATATTGAGACCAGTAACCTTACT  
 GTAATTTACTTTGTTTCATTGAAAAACAATGATAACATATTAACCTGGAAGAATT  
 TTCTTTATTCAAATGAAAACATGTTTGATGACTGGTCAAAAAATAAGCTCATAATCTATT  
 TTTTTCATGTAGTATATAAGTCAAGAATGTTTTATTGTCATTATGTGAAACCAATATTGG  
 CAAATAGTACTTTAATGATGAAGTAAATGACCAGAAATATAGAATCTGTGTTTTCTCTG  
 TAAAAATAGCACTATAGTATCACTTGAACAATTTGATTTGGCTTTACTTACTAGGAAGCC  
 TGGAAATCATTATTTTTTCTTTTATGTGCCACTGTGGCTACTTTAAATCACTCTGAGA  
 GGTAAATGGATATAGGATTGAAGTTATGTGGGTATTTGGCATGTGTGTGAAATAAATA  
 TGTAGATAGTCACATATACACAGACTGAGAGATAAATTGTTCTTGATTGCTTTATTATCA  
 TCATACTAGTGTGTTTATTATAGAGTATCTGTAGAGGTGAATGTAAGTAAGTCCAATCTA  
 TTTTCTTATGTCATTGAATTTGTAGTGTAACTTGCATATATGTTATTGGATGGGTTGTC  
 TTTTAAAGCATTTACTAATGTACTCTGAAATTTTTAAAAGCCTTCAGATTTGTTTTCTAG  
 TCACTTTTTTCCATATCATTTCTAATTATAGTTTATATCCTTAAAAGAAGGATGCCACAG  
 TAGTATGTAAAACCCAAACAAGTAGAACCAAGCAAATAAAATTTTAAATAATTTTA  
 AAGTGGCTTAGTACTGCCAGTCATGTAATTTGATTCTGCTGAGGGTCTTATAAGAATTGA  
 GATATAACAATGGTAAAACAAGCATTCAAGCACTTTTACAAAATTACCAAATTTTAAAA  
 TGAAGCCACAGCTAGACTTGCATTTTCAGGTATTAATAATGCTTTCTTAACTGTCAAGAAT  
 CAAAAATAACAAATCATATTATGAGTGAATATGGGGAGGGCGGGCCAAATCAGTCAATG  
 ATAATCTGAACAAATTTAAGAGCAGATTTAGATTAATAATGTTTTATCACCATAATT  
 TGCCCAACAACAACTCAGTATTTAATTTTTCAAATTAATATTAATTTAAGTATTT  
 TAAATAATTAACATTAATGGCAACCATAGAATATAGGTGTTCTCTGGACCTATTC  
 TAACCACTTAAAATATCTTAAGTATGCATACATAAAAAGCAACCACTATGAGAACTACC  
 GTTGTAGGTTTTTCACTTACTGTATATTACCCTGTAGGAATAGTTAAGGAAATTCAT  
 TTCTTAAAAATATAGTGCCTCAAATAATTAATTTTTTGGCAACTTTAGTTATTACAGG  
 CAGCAAAAACCACTGTCTGAACTAAATCTGTGTTCAAAGATGAAGACCCCTCATAAAA  
 GCCAAGGACGTTCTTAAGATTGGAAGTACATAATTAGTCTTGACTTACTTCATTAAGC  
 AAGATTCAATTCAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_004744

**Insert Size:** 2700 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_004744.3.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u>NM_004744.3</u> , <u>NP_004735.2</u>
<b>RefSeq Size:</b>	4909 bp
<b>RefSeq ORF:</b>	693 bp
<b>Locus ID:</b>	9227
<b>UniProt ID:</b>	<u>O95237</u>
<b>Cytogenetics:</b>	4q32.1
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Retinol metabolism
<b>Gene Summary:</b>	<p>The protein encoded by this gene localizes to the endoplasmic reticulum, where it catalyzes the esterification of all-trans-retinol into all-trans-retinyl ester. This reaction is an important step in vitamin A metabolism in the visual system. Mutations in this gene have been associated with early-onset severe retinal dystrophy and Leber congenital amaurosis 14. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2014]</p> <p>Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 encode the same protein.</p>